

An excellent specimen of this shell occurs in the collection of the Academy presented by Mr. O'Kelly, of Dublin, Ireland.

An Account of the Crustacea of the United States.
By Thomas Say. Read June 10, 1818.

(Continued)

Genus *DIASTYLIS †

Essential Character.

Feet bifid; *antennæ* destitute of accessory scales; *tail* with a single bifid style on each side of the first segment, second segment terminated by a simple one.

Natural Character.

Thorax six-jointed, anterior one much larger than the others conjunctly, laterally deflected, compressed, embracing the sides, and rostrated; *rostrum* permanent, concave beneath, concealing the base of the intermediate antennæ; *antennæ* four, placed on nearly the same horizontal line, inner ones four-jointed, three basal joints robust, first and second subequal, very short, concealed by the rostrum, third joint articulated, as long as the two preceding ones conjunctly, bifid, inferior division much shorter, exterior antennæ simple, longer than the inter-

† In allusion to the caudal appendices.

mediate ones, basal joint robust, without a scale, terminal joint articulated; *external pedipalpi* very large, pediform, nearly attaining the front, first joint very much elongated, compressed, remaining joints very small, cylindrical, subequal; *feet* five pairs, bifid, anterior pair truncate at tip, shorter than the external pedipalpi, second pair acuminate, third, fourth, and fifth pairs reflected, acuminate, destitute of nails, armed towards the tip with robust hairs; *abdomen* five-jointed, cylindric, much narrower than the thorax, four anterior joints subequal, fifth rather longer, first and second segments furnished beneath with natatory feet; *tail* bi-articulate, first joint with a lateral style, composed of a cylindrical peduncle and bifid, short seta, second joint smaller than the preceding, terminated by a simple cylindrical style.

Species.

*D. *arenarius.* *Thorax* above a little undulated, glabrous, as long as the abdomen and tail conjunctly, edge each side before minutely crenate; *rostrum* short, obtuse, triangular; intermediate antennæ two thirds the length of the first joint of the thorax, inferior seta less than half as long as the superior one, exterior antennæ longer than the first joint of the thorax, basal joint attaining the tip of the third joint of the inner antennæ; *lateral caudal styles* divaricated, longer than the tail, peduncles somewhat dilated at tip, setæ half as long as the peduncle, and appearing articulated, terminal style less than half the length of the lateral ones.

Length one fifth of an inch.

Inhabits Coast of Georgia and Florida.

Cabinet of the Academy.

I think there is little doubt of this animal being congeneric with *Cancer scorpioides*, described by Montagu in the seventh volume of the *Trans. Lin. Soc. of Lond.*, and indistinctly represented on plate sixth of that instructive work. The general appearance, particularly of the posterior part of the body in that figure, its curve, the caudal appendices &c., is very similar to that of the species upon which I have constructed this genus. The author in describing it observes, that it was a mutilated specimen, but the only one he had seen; "the head or fore part was wanting, consequently no eyes nor antennæ could be observed; but the rudiment of arms on the fore part of the body" &c. Notwithstanding these remarks of that intelligent observer, I am led to believe, by comparing his figure and description with this animal, and judging from the analogy between them, that it was nearly complete, wanting only the intermediate antennæ. But it is necessary to remark, that in our animal there is no distinct head, unless that part of the body can be considered as such, which I have called the first segment of the thorax; this is the more probable since neither of the five pairs of feet which I have enumerated, are distinctly perceived to arise from that part. It is true, that those members which Mr. Montagu has called "rudiments of arms," most obviously have their origin there; yet these, although much larger than either of the feet, and equidistant from the two anterior pairs, I have supposed, from their form and apparent position, to be no

other than palpi, and have described them as such. Immediately under these external pedipalps is a much smaller distinct and filiform pair. The exterior antennæ are concealed each side beneath the deflected margins of the thorax. The eyes are probably very retractile, and placed below the antennæ: I did not discover them.

I found but a single individual in a handful of sand taken from one of those pools which are frequented by *Lepidactalis*,

Cancer esca, Gmel., an inhabitant of the Norway sea, said to be the chief food of the Herring, will, judging from the description, form a third species of this genus. Mr. Montagu considered it similar to *C. scorpioides*.

By the bifid feet *Diastylis* claims kindred to the genera *Mysis* and *Nebalia*; and when placed immediately in succession to the latter, will contribute another link, by which the *Macrouræ*, through the medium of the *Schizopodæ*, are conneted to the *Monoculii* by *Cyclops*, the most proximate of the genera of that order.

ORDER III.

AMPHIPODA. Latr.

Head distinct from the thorax, and simple; eyes immoveable, fixed in the shell; mandibles palpigerous, three pairs of maxillæ, exterior ones resembling a lip

with two palpi or two small feet united at the base; branchiæ vesicular, and situate at the inner base of the feet, with the exception of the anterior pair.

*Genus *LANCEOLA.†*

Essential Character.

Antennæ four, terminal joints not articulated; *antennæform processes* above the mouth; *caudal styles*, three pairs, peduncle depressed linear, supporting two lanceolate lamellæ.

Natural Character.

Body soft, external covering membranaceous; *head* very short, transverse; *eyes* longitudinal, placed opposite the base of the superior antennæ; *clypeus* projecting into an acute angle; *front* concave; *antennæ* four, unequal, inferiores longest, four jointed, compressed, basal joints very short, third and fourth longer, equal, the latter entire, superiores abbreviated, compressed, triarticulate, basal joints short, robust, concealed by the clypeus, terminal joint not articulated, linear, compressed, obtuse; *mouth* protuberant; *labrum* emarginate, supporting two filiform, triarticulate processes, of which the first joint is very short, second linear, third shorter, subulate; *labium* (pedipalpi) bifid, closing the mouth, laciniae linear, inner edges hirsute, tips

† In allusion to the form of the terminal divisions of the caudal appendices.

rounded; *thorax* oval, convex above and beneath, seven jointed, sutures imbricate; *feet* fourteen, simple, two anterior pairs compressed, terminal joints conic compressed, remaining pairs somewhat cylindric, armed with a minute, subterminal nail, sixth pair much the longest; *vesicular branchiæ* oblong, distinct, placed at the inner base of the feet, excepting the first and seventh pairs; *abdomen* abruptly much narrower than the thorax, of three subcylindrical segments, each furnished with natatory feet; *tail* depressed, three jointed, joints furnished each with a lateral style, which consists of a foliaceous linear peduncle, supporting two acute lanceolate, subequal lamellæ, two anterior styles equal, posterior pair rather shorter, terminal segment attenuated between the posterior styles,

SPECIES.

*L. *pelagica.* *Antennæ*, inferiores more than half as long as the thorax, superiores attaining the middle of the third joint of the inferiores; *antennæform processes* surpassing the second joint of the inferior antennæ; *thorax*, first segment shortest, acutely angled before near the clypeus, second and third segments longest, equal; *feet*, anterior pair shortest, third, fourth, and seventh equal, fifth longer, sixth longer than the thorax.

Length one inch and one fourth

Inhabits—Gulf-stream.

Cabinet of the Academy.

Two specimens of this animal were found by Capt. Hamilton, in the Gulf-stream, and from them, although

both females, the above descriptions are taken : the male not having yet come under examination. I am sensible that it is not perfectly consistent with a due degree of caution, to construct a genus for the female of an animal, when, as in this case, the male may present diverse characters, or such as are much more prominent and accessible, although this has been often done. But in the present instance we have an animal to give an account of, whose generic traits widely differ from those of any other as laid down by naturalists, so that in order to be introduced into this paper at all, it is believed that the formation of a distinct genus is unavoidable ; this is therefore offered provisionally, to be altered, rejected, or retained, as the male, when discovered, may justify.

Its generic affinities are rather difficult to determine. It is allied to Amphipoda by the vesicular branchiæ, and by the caudal appendices to the genus *Phronima*, more than to any other of this order ; in the external appearance of the mouth there is a great similarity to the Linnæan *Oniscii*, the labium being nearly the same in form. In general form it somewhat resembles *Oniscus cæruleatus* of Montagu, *Trans. Linn. Soc. Lond.* vol. xi, from which I suppose Doct. Leach has formed his genus *Praniza*, which, although but slightly characterized by Mr. Latreille, in *Le Règne Animal*, tom. 3, p. 54, and without any reference to books or specimens, is evidently very distinct.